

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2004-SW-08-AD; Amendment 39-13637; AD 2004-10-07]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Model 407 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) for Bell Helicopter Textron Canada (BHTC) Model 407 helicopters which requires a one-time replacement of certain oil cooler blower bearings. Also, the existing AD requires adding a limitation and caution to the rotorcraft flight manual (RFM) and inspecting, replacing, and lubricating certain bearings at specified intervals. This amendment adds certain segmented drive shaft bearings to the applicability and requires modifying the oil cooler blower inlet ducts and airflow shields and replacing certain bearings. Thereafter, this amendment requires removing the current temporary limitations and inserting revised limitations into the RFM. This amendment also requires revising the inspection and lubrication requirements. This amendment is prompted by several cases of bearing failure. The addition of certain segmented drive shaft bearings is due to two recent failures. The actions specified by this AD are intended to prevent failure of a bearing, loss of tail rotor drive, and a subsequent loss of directional control of the helicopter.

DATES: Effective June 4, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of June 4, 2004.

Comments for inclusion in the Rules Docket must be received on or before July 19, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2004-SW-08-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: 9-asw-adcomments@faa.gov.

The service information referenced in this AD may be obtained from Bell Helicopter Textron Canada, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4, telephone (450) 437-2862 or (800) 363-8023, fax (450) 433-0272. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137; or at the

National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

FOR FURTHER INFORMATION CONTACT: Monica Merritt, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5115, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: On February 10, 2000, the FAA issued AD 2000-02-12, Amendment 39-11579, (65 FR 8032, February 17, 2000), Docket No. 99-SW-79-AD, to require inspecting each oil cooler blower bearing for roughness and replacing any rough bearing before further flight. That AD was prompted by reports of bearing failure. Subsequently, the FAA received additional reports of bearing failures that may have been caused by engine exhaust gas ingestion. Therefore, the FAA issued superseding Emergency AD 2002-06-52 on March 15, 2002, to require replacing certain bearings, adding a limitation and caution to the RFM, and at specified intervals inspecting, lubricating, and replacing the bearings. That Emergency AD was published as a Final Rule; Request for Comments on April 17, 2002 (67 FR 18815). That action was prompted by several cases of bearing failures. The requirements of that AD are intended to prevent oil cooler blower bearing failure, loss of tail rotor drive, and a subsequent forced landing.

Since issuing that AD, the FAA has received more reports of bearing failure. Since the initial reports of in-flight oil cooler bearing failures, we have received recent reports of in-flight bearing failures occurring on the segmented tail rotor drive shaft. In response to the failures, the manufacturer has introduced improvements to the oil cooler inlet airflow. Also, the manufacturer prescribes replacing bearings, part number (P/N) 406-040-339-ALL, 407-340-339-101 and 407-340-339-103, with improved bearings, P/N 407-340-339-107. BHTC has revised its Alert Service Bulletins for the Model 407 helicopters as follows:

Alert Service Bulletin (ASB) 407-02-54, Revision A, dated October 10, 2002, specifies installing the oil cooler blower inlet ducts and airflow shields for helicopters, serial number (S/N) 53000 through 53518 (excluding S/N 53108). Performing the specifications of this ASB is considered terminating action to ASB 407-02-49, Revision A, dated March 12, 2002.

ASB 407-04-63, Revision A, dated March 3, 2004, specifies replacing bearings, P/N 407-340-339-101 and 407-340-339-103, with bearings, 407-340-339-107, and inspecting and lubricating the bearings. This ASB supersedes ASB 407-01-44, Revision C, dated September 23, 2003; ASB 407-01-47, Revision B, dated June 24, 2003; and TB 407-03-43, dated September 22, 2003.

Transport Canada, the airworthiness authority for Canada, notified the FAA that an unsafe condition may exist on these helicopters models. Transport Canada advises that service history has shown high failure rates of bearings, P/N 407-340-339-101 and -103, at the oil cooler blower location. Service history also indicates bearings, P/N 407-340-339-101 and 407-340-339-103, located on the segmented tail rotor drive shaft have failed in flight. Transport Canada classified the ASBs as mandatory and issued AD CF-2002-18R2, dated November 5, 2003, and superseding AD CF-2002-18R3, dated March 26, 2004, to ensure the continued airworthiness of these helicopters.

This helicopter model is manufactured in Canada and is type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, Transport Canada has kept the FAA informed of the situation described above. The FAA has examined the findings of Transport Canada, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

This previously described unsafe condition is likely to exist or develop on other helicopters of the same type design. The actions must be done following the service bulletins described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability or structural integrity of the helicopter. Therefore, this AD supersedes AD 2002-06-52 to require the following actions:

- On or before May 31, 2004, or within 200 hours time-in-service (TIS), whichever occurs first, modify the oil cooler fairing inlet ducts and airflow shields. Also, replace the oil cooler blower and segmented shaft bearings, P/N 406-040-339-ALL, 407-340-339-101 and 407-340-339-103, with improved bearings, P/N 407-340-339-107, and replace the warning lubrication decal. Also, replace temporary revision (TR)-9, dated January 15, 2002, that contains limitations prohibiting operations with a sustained tailwind greater than 5 knots, in the RFM, with TR-10, dated July 25, 2002. TR-10 eliminates the limitation on the prohibition on tailwind operation in TR-9 because of the incorporation of oil cooler blower inlet ducts and bearing airflow shields.

- At specified intervals, inspect bearings, P/N 406-040-339-ALL, 407-340-339-101, -103, and -107. If the bearing is rough, a seal is torn, the expelled grease has turned black, or metal particles are visible in the expelled grease, before further flight, replace the affected bearings with airworthy bearings, P/N 407-340-339-107, along with the modifications to the oil cooler inlet airflow. At specified intervals, lubricate the bearings.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days. The FAA estimates that this AD will:

- Affect 281 helicopters of U.S. registry;
- Take 50 work hours to modify the oil cooler fairing inlet ducts and to install the shields and 6.5 work hours to replace the bearings at an average labor rate of \$65 per work hour; and
- Cost \$6,500 for the 25-hour inspection and lubrication, assuming 100 helicopters are affected and must be inspected and lubricated once and it takes approximately $\frac{1}{2}$ work hour for each lubrication and $\frac{1}{2}$ work hour for each inspection and the average labor rate is \$65 per work hour.
- Cost \$3,419 for parts.

Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$1,999,212 to modify the entire fleet and assuming that the 100-hour repetitive inspections add no additional cost.

The cost impact figure listed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD. However, numerous operators have previously accomplished the intent of this AD; therefore, the cost impact of the AD may be reduced accordingly.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their mailed comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 2004-SW-08-AD." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Amendment 39-12711 (67 FR 18815, April 17, 2002), and by adding a new airworthiness directive (AD), to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-10-07 Bell Helicopter Textron Canada: Amendment 39-13637. Docket No. 2004-SW-08-AD. Supersedes AD 2002-06-52, Amendment 39-12711, Docket No. 2002-SW-08-AD.

Applicability: Model 407 helicopters, with bearing, part number (P/N) 406-040-339-ALL, 407-340-339-101, 407-340-339-103, or 407-340-339-107 installed on the oil cooler blower bearing assembly or segmented tail rotor drive shaft assembly, certificated in any category.

Compliance: Required as indicated.

(a) Until the oil cooler inlet airflow improvements as required by paragraph (c)(1) of this AD have been installed, before further flight, unless accomplished previously, and thereafter, at intervals not to exceed 25 hours time-in-service (TIS):

(1) Inspect each oil cooler blower bearing and each segmented drive shaft bearing, P/N 406-040-339-ALL, 407-340-339-101, and 407-340-339-103, by following the Accomplishment Instructions, Part IV, paragraph 2.a. through 2.g., of Bell Helicopter Textron Alert Service Bulletin (ASB) 407-04-63, Revision A, dated March 3, 2004 (ASB 407-04-63). If a bearing is rough, a seal is torn, the expelled grease has turned black, or metal particles are visible in the expelled grease, before further flight:

(i) Replace with an airworthy bearing, P/N 407-340-339-107, both oil cooler blower bearings and each affected segmented drive shaft bearing and perform an operational test, and

(ii) Install the oil cooler inlet airflow improvements as required by paragraph (c) of this AD.

(2) Lubricate each bearing by following the Accomplishment Instructions, Part V, paragraph 2. of ASB 407-04-63.

(b) For helicopters that have installed the oil cooler inlet airflow improvements as required by paragraph (c) of this AD, before further flight, unless accomplished previously, and thereafter at intervals not to exceed 100 hours TIS:

(1) Inspect each oil cooler blower bearing and each segmented drive shaft bearing, P/N 407-340-339-101 and 407-340-339-107, by following the Accomplishment Instructions, Part IV, paragraph 2.a. through 2.g., of ASB 407-04-63. If a bearing is rough, a seal is torn, the expelled grease has turned black, or metal particles are visible in the expelled grease, before further flight, replace the affected bearing with an airworthy bearing, P/N 407-340-339-107.

(2) Lubricate each bearing by following the Accomplishment Instructions, Part V, paragraph 2., of ASB 407-04-63.

(c) Unless accomplished previously, on or before May 31, 2004, or within 200 hours TIS, whichever occurs first:

(1) Install oil cooler inlet airflow improvements by following the Accomplishment Instructions, Parts I through VI, excluding paragraph 4 of Part VI, of ASB 407-02-54, Revision A, dated October 10, 2002 (ASB 407-02-54).

Note 1: Bell Helicopter Textron Maintenance Manual BHT-407-MM-7, Revision 12, paragraph 65-31. Oil Cooler Blower-Disassembly, pertains to removing the bearings and hangers from the oil cooler blower.

(2) Replace each oil cooler blower bearings and each segmented drive shaft bearing, P/N 406-040-339-ALL, 407-340-339-101, and 407-340-339-103, with a bearing, P/N 407-340-339-107, and perform an operational test.

(3) Lubricate each bearing, P/N 407-340-339-107, by following the Accomplishment Instructions, Part V, paragraph 2., of ASB 407-04-63.

(4) Replace each warning lubrication decal 31-112-2 with decal 31-116-1 by following the Accomplishment Instructions, Part III, paragraphs 1. through 4., of ASB 407-04-63.

(5) Replace Temporary Revision (TR)-9, dated January 15, 2002, that contains limitations prohibiting operations with a sustained tailwind greater than 5 knots, in the Rotorcraft Flight Manual. Replace TR-9 with TR-10, dated July 25, 2002. TR-10 eliminates limitation on the prohibition on tailwind operation in TR-9 because of the incorporation of oil cooler blower inlet ducts and bearing airflow shields.

(d) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Safety Management Group, Rotorcraft Directorate, FAA, for information about previously approved alternative methods of compliance.

(e) Special flight permits will not be issued.

(f) The modifications, bearing replacements, inspections, and lubrication shall be done following Bell Helicopter Textron Alert Service Bulletins 407-02-54, Revision A, dated October 10, 2002, and 407-04-63, Revision A, dated March 3, 2004. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bell Helicopter Textron Canada, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4, telephone (450) 437-2862 or (800) 363-8023, fax (450) 433-0272. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Note 2: The subject of this AD is addressed in Transport Canada AD CF-2002-18R3, dated March 26, 2004.

(g) This amendment becomes effective on June 4, 2004.

Issued in Fort Worth, Texas, on May 10, 2004.

Kim Smith,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 04-11039 Filed 5-19-04; 8:45 am]

BILLING CODE 4910-13-P